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CHOATE, HALL & STEWART

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53 STATE STREET

BOSTON, MASSACHUSETTS 02109-2804

TELEPHONE (617) 248-5000 • FAX (617) 248-4000

WWW.CHOATE.COM

BOX PATENT APPLICATION

ASSISTANT COMMISSIONER FOR PATENTS

P.O. BOX 2327

ARLINGTON, VA 22202

Express Mail No.: EL603009481US

Attorney Docket No.: 2003080-0071

Date Filed: December 4, 2001

UTILITY PATENT APPLICATION TRANSMITTAL

(for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Dear Sir:

Please find enclosed a patent application and papers as follows for:

Inventor(s):

Given Name (first and middle)	Family Name or Surname	Residence (City and State or Foreign Country)
Samuel J.	Danishefsky	Englewood, NJ
Peter	Bertinato	Old Lyme, CT
Dai-Shi	Su	New York, NY
Dongfang	Meng	New York, NY
Ting-Chao	Chou	Paramus, NJ
Ted	Kamenecka	New York, NY
Erik J.	Sorensen	San Diego, CA
Aaron	Balog	New York, NY
Kenneth A.	Savin	New York, NY

Title of the Invention:

Synthesis of Epothilones, Intermediates Thereto, Analogues and Uses Thereof

A) APPLICATION ELEMENTS:

1) ☒ Fee Transmittal Form (original and duplicate submitted for fee processing)

2) ☒ Applicant Claims Small Entity Status (see 37 C.F.R. § 1.27)

a) ☒ Statement Verifying Small Entity Status (optional)

3) ☒ **Specification**

TOTAL PAGES: 112

(87 pp. description; 24 pp. claims; 1 pg. abstract)

- ☒ Descriptive Title of the Invention
- ☒ Cross References to Related Applications (if applicable)
- ☒ Statement Regarding Federally Sponsored R & D (if applicable)
- ☐ Reference to sequence listing, a table, or a computer program listing appendix
- ☒ Background of the Invention
- ☒ Summary of the Invention
- ☒ Description of the Drawing (if filed)
- ☒ Detailed Description of the Invention
- ☒ Claim(s)
- ☒ Abstract of the Invention

4) ☒ **Drawing(s)** (35 U.S.C. § 113)

TOTAL SHEETS: 59

- a) ☒ Formal Drawings (if checked)

TOTAL SHEETS: 76

5) ☒ **Oath or Declaration**

TOTAL PAGES: 8

- a) ☐ Newly Executed (original or copy)

- b) ☒ Copy from a prior application (37 C.F.R. § 1.63(d))-for  
continuation/divisional application

- i) ☐ Deletion of inventor(s): Signed Statement deleting inventor(s) named  
in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

- c) ☐ Unexecuted

6) ☐ **Application Data Sheet**. See 37 C.F.R. § 1.76.

7) ☐ **CD-ROM or CD-R in duplicate, large table or Computer Program  
(Appendix)**

8) ☐ **Nucleotide and/or Amino Acid Sequence Submission** (if applicable, all are  
necessary)

- a) ☐ Computer Readable Form (CRF)

- b) ☐ Specification Sequence Listing on:

- i) ☐ CD-ROM or CD-R (2 copies); or

- ii) ☐ Paper

- c) ☐ Statements verifying identity of above copies

B) ACCOMPANYING APPLICATION PARTS:

- 9) ☒ **Assignment Papers** (cover sheet & document(s))
- 10) ☐ **37 C.F.R. § 3.73(b) Statement** (when there is an assignee)
- 11) ☒ **Power of Attorney**
- 12) ☐ **English Translation Document** (if applicable)
- 13) ☒ **Information Disclosure Statement (IDS)/PTO-1449 (6 pp. total)**
- 14) ☐ **Copies of IDS Citations**
- 15) ☒ **Preliminary Amendment (11 pp. (includes marked-up copies))**
- 16) ☒ **Return Receipt Postcard (MPEP 503)** (specifically itemized)
- 17) ☐ **Certified Copy of Priority Document(s)** (if foreign priority is claimed)
- 18) ☒ **OTHER:** (if applicable, specified below)

**Identification of Patent Under 37 CFR §1.607(c) (1 pg.)**

C) FOR CONTINUING APPLICATIONS: (the appropriate box is checked, and certain information is provided below and in a preliminary amendment)

☒ continuation                      ☐ divisional                      ☐ continuation-in-part (CIP)

of prior application no.: 09/874,514

filed: June 5, 2001

examiner: T. Solola

group/art unit: 1626

**for continuation or divisional applications only:** The entire disclosure of the prior application, from which an oath or declaration is supplied as detailed above, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference.

D.) PRIORITY CLAIM(S):

This application claims the benefit under 35 U.S.C. § 120 of any United States application(s) or PCT international application(s) designating the United States of America listed below:

<u>Application Serial No.</u>	<u>Filing date</u>	<u>Status (patented, pending, abandoned)</u>
09/874,514	June 5, 2001	Pending

This application claims the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

<u>Application Serial No.</u>	<u>Filing date</u>	<u>Status (pending, expired, abandoned)</u>
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E) METHOD OF PAYMENT OF FILING FEES FOR THIS APPLICATION:

- ☒ Applicant claims small entity status 37 C.F.R. § 1.27.
- ☒ A check is enclosed to cover the filing fees.
- ☒ The commissioner is hereby authorized to charge filing fees or to credit any overpayment to deposit account number 03-1721.

Basic Filing Fee (Small Entity)	\$370.00
Additional Fees:	
Total Number of Claims in excess of 20: (201- 20) x \$9	\$1,629.00
Number of Independent Claims in excess of 3:(25- 3) x \$42	\$924.00
Multiple Dependent Claims (\$140):	<u>\$140.00</u>
Total Filing Fee:	\$3,063.00

F) CORRESPONDENCE ADDRESS:



☒ Customer Bar Code Label:

24280

PATENT TRADEMARK OFFICE

☒ Correspondence Address:

Karoline K.M. Shair, Ph.D.  
Choate, Hall & Stewart  
53 State Street  
Exchange Place  
Boston, MA 02109  
phone: (617) 248-5000  
fax: (617) 248-4000

Respectfully Submitted,

Karoline K.M. Shair, Ph.D.  
Registration No. 44,332

CHOATE, HALL & STEWART  
53 State Street  
Exchange Place  
Boston, MA 02109  
Phone: (617) 248-5000  
Fax: (617) 248-4000

12/04/01

J1064 U.S. PTO

PTO/SB/17 (11-01)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

(\$ 3,063.00)

## Complete if Known

Application Number	
Filing Date	December 4, 2001
First Named Inventor	Danishefsky, et al.
Examiner Name	T. Solola
Group Art Unit	1626
Attorney Docket No.	2003080-0071

## METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit Account Number  
Deposit Account Name

03-1721

Choate, Hall &amp; Stewart

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments  
☐ Charge any additional fee(s) during the pendency of this application  
☒ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account

## FEE CALCULATION

## 1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 740	201 370	Utility filing fee	\$370.00
106 330	206 165	Design filing fee	
107 510	207 255	Plant filing fee	
108 740	208 370	Reissue filing fee	
114 160	214 80	Provisional filing fee	
SUBTOTAL (1)			(\$ 370.00)

## 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
201	-20** = 181	9.00	1,629
25	-3** = 22	42.00	924
Multiple Dependent		140	140

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103 18	203 9	Claims in excess of 20
102 84	202 42	Independent claims in excess of 3
104 280	204 140	Multiple dependent claim, if not paid
109 84	209 42	** Reissue independent claims over original patent
110 18	210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$ 2,693.00)

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

## 3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for <i>ex parte</i> reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 400	216 200	Extension for reply within second month	
117 920	217 460	Extension for reply within third month	
118 1,440	218 720	Extension for reply within fourth month	
128 1,960	228 980	Extension for reply within fifth month	
119 320	219 160	Notice of Appeal	
120 320	220 160	Filing a brief in support of an appeal	
121 280	221 140	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,280	241 640	Petition to revive - unintentional	
142 1,280	242 640	Utility issue fee (or reissue)	
143 460	243 230	Design issue fee	
144 620	244 310	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Processing fee under 37 CFR 1.17(q)	
126 180	126 180	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	
146 740	246 370	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 740	249 370	For each additional invention to be examined (37 CFR § 1.129(b))	
179 740	279 370	Request for Continued Examination (RCE)	
169 900	169 900	Request for expedited examination of a design application	
Other fee (specify) _____			
SUBTOTAL (3)			(\$ 0.00)

\*Reduced by Basic Filing Fee Paid

## SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	Karoline K.M. Shair, Ph.D.	Registration No. (Attorney/Agent)	44,332	Telephone	(617) 248-5216
Signature	<i>Karoline K.M. Shair</i>			Date	December 4, 2001

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant : Danishefsky *et al.* Examiner : T. Solola  
Serial No. : not yet assigned Art Unit : 1626  
Filed : December 4, 2001  
For : *Synthesis of Epothilones, Intermediates Thereto, Analogues and Uses  
Thereof*

BOX PATENT APPLICATION  
ASSISTANT COMMISSIONER FOR PATENTS  
US PATENT AND TRADEMARK OFFICE  
P.O. Box 2327  
ARLINGTON, VA 22202

**EXPRESS MAIL NO: EL603009481US**

Sir:

**IDENTIFICATION OF PATENT UNDER 37 CFR § 1.607(c)**

As required by 37 CFR § 1.607(c), Applicants submit that the above-referenced application, as filed herewith on December 4, 2001, presents a claim (claim 59) that corresponds substantially to claim 1 of patent number 6,156,905, issued December 5, 2001. Applicants would like to point out that US Patent No.: 6,156,905 is being cited in the Information Disclosure Statement filed herewith and was also cited in the Information Disclosure Statements filed in the parent patent applications: 09/874,514, filed June 5, 2001, and 08/986,025, filed December 3, 1997, now U.S. Patent No. 6,242,469, issued June 5, 2001.

Please charge any fees or credit any overpayments to our Deposit Account No. 03-1721.

Respectfully submitted,

*Karoline K. M. Shair*  
Karoline K.M. Shair, Ph.D.  
Reg. No. 44,332

Choate, Hall & Stewart  
Exchange Place  
53 State Street  
Boston, MA 02109  
(617) 248-5000

**Date: December 4, 2001**  
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant : Danishefsky *et al.* Examiner : T. Solola  
Serial No. : not yet assigned Art Unit : 1626  
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For : *Synthesis of Epothilones, Intermediates Thereto, Analogues and Uses  
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BOX PATENT APPLICATION  
ASSISTANT COMMISSIONER FOR PATENTS  
US PATENT AND TRADEMARK OFFICE  
P.O. Box 2327  
ARLINGTON, VA 22202

**EXPRESS MAIL No: EL603009481US**

**STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants request consideration of this Information Disclosure Statement.

**PART I: Compliance with 37 C.F.R. §1.97**

- A. ☒ This Information Disclosure Statement has been filed:
1. ☒ within three months of the filing date of the above identified U.S. Patent application other than a continued prosecution application under § 1.53(d);
  2. ☐ within three months of the filing date of the entry of the National Stage, as set forth in 37 C.F.R. §1.491, in an International application;
  3. ☐ before the mailing date of the first Office Action on the merits in the above-identified application; or
  4. ☐ before the mailing of a first Office Action after the filing of a request for continued examination under § 1.114.

No fee or certification is required.



PART II - 37 CFR § 1.98 Content of Information Disclosure Statement:

[X] Applicants hereby make of record in the above-identified application all patents, publications, applications or other information submitted for consideration by the Office listed on the attached form PTO-1449 (modified). The order of presentation of the patents, publications, applications or other information should not be construed as an indication of the importance.

Remarks

A copy of each of the above-identified U.S. and foreign patent(s), publication(s), application(s) or other information submitted is enclosed unless otherwise indicated on the attached form PTO-1449 (modified). It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information been fully considered by the Patent and Trademark Office during the examination of this application; and
3. The citations for the patent(s), publication(s), application(s), or other information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, Applicants make no representation that a search has been performed, of the extent of any search performed, or that more material information may not exist.

By submitting this Information Disclosure Statement, Applicants make no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, Applicants make no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by Applicants, the Examiner is urged to form his or her own conclusions regarding the relevance of the cited materials. An early and favorable action is hereby requested.

Respectfully submitted,



Karoline K. M. Shair, Ph.D.

Reg. No. 44,332

Choate, Hall & Stewart  
Exchange Place  
53 State Street  
Boston, MA 02109  
(617) 248-5000  
Date: December 4, 2001  
3341978\_1.DOC